

POLYETHYLENE PRESSURE PIPE, D.I.P.S.

ITEM 1411

PART 1 - GENERAL

WORK INCLUDED: (Sec. 01) Furnish and install all Polyethylene Pressure Pipe, D.I.P.S. (Ductile Iron Pipe Size) and fittings, with all appurtenances, as indicated on the Drawings, in the General Notes, and specified herein.

RELATED WORK: (Sec. 02) Furnished/paid for in this Item:

Earth Excavation/Backfill
Granular Backfill
Testing of Pipe Lines and Sewers

Furnished/paid for in respective Item: (as applicable)

Rock Excavation and Backfill
Bulk Concrete

QUALITY ASSURANCE: (Sec. 03) All Materials shall be new and of the best quality.

REFERENCES: (Sec. 04)

ASTM - American Society for Testing and Materials
ODOT- Ohio Department of Transportation, Construction and Material Specifications
AWWA - American Water Works Association

SUBMITTALS: (Sec. 05) Shop Drawings - See General Conditions. Provide four (4) sets for record purposes only.

DELIVERY, STORAGE, HANDLING: (Sec. 06) Use care in delivery, storage and handling of pipe and fittings; in accordance with the manufacturers instructions.

MEASUREMENT/PAYMENT: (Sec. 07) The lengths of the varies sizes of pipe to be paid for in this Item shall be the lengths actually furnished and placed in accordance with these Specifications, measured along the axis after the pipe, fittings, and valves have been connected in place.

Payment for the tees and bends etc. (fitting) is included with the main line pipe.

WARRANTY: (Sec. 08) See General Conditions

PART 2 PRODUCTS

MATERIALS: (Sec. 09) Pipe shall be listed in latest "Seal of Approval Listing", and conform to the following:

AWWA C-906 Polyethylene Piping Systems

Pipe and Fittings: Clean, virgin, material conforming to AWWA C-906. Pressure Pipe Class as shown on the drawings.

Pipe shall be marked with size, pipe material designation applicable AWWA or Commercial Standard, pressure rating, manufacturer's identification and date of manufacture. Thickness of pipe shall be uniform throughout length.

Joints: Pipe shall be connected by Butt Fusion or Electro Fusion weld. Details of the joint design and assembly shall be in accordance with the manufacturer's standard practice.

Bedding Material shall be ASTM D-2321 Class 1-A, or sand free from dirt and other deleterious materials, and placed in accordance with the detail shown on the drawings.

PART 3 - EXECUTION

INSPECTION: (Sec. 10) Pipe and fittings shall be carefully examined by the Contractor and Resident Representative for defects before laying. No pipe or fitting shall be used which is known to be defective.

INSTALLATION: (Sec. 11) Earth excavation and backfilling Item 120 and Granular Backfilling Item 164 shall be performed in accordance, within measurement limits indicated on the Drawings and General Notes.

Pipe and fittings shall be installed per AWWA designation C-906

Methods of cutting and joining the pipe shall follow the approved practice specified by the pipe manufacturer.

Pipe shall be installed with bedding as indicated on the Drawings, well tamped in 6 inch layers. The pipe shall be uniformly supported through its length.

No pipe shall be laid within six inches of any rock, in water or on frozen trench bottom, or when in the opinion of the Resident Representative the trench conditions or the weather are unsuitable for such work.

Concrete thrust blocking shall be installed wherever the pipe line changes direction as at tees, bends and crosses, changes size at reducers, dead end stops and at valves. (Item 505).

FIELD QUALITY CONTROL: (Sec. 12)

Testing: Lines shall be tested by the Contractor for the service to which they will be subjected, or as directed by the Resident Representative, as specified in Item 1600, Testing of Pipe Lines and Sewers.

CLEAN-UP: (Sec. 13) Remove excess materials and debris off site. Rough grade area to provide drainage, if required.